

Claims

1. Method for establishing a connection between a service requester (client) (1) and a service provider (server) (3) in a decentralized mobile wireless network (8) with service discovery service, wherein the service requester (client), in order to locate an as yet unknown service provider (server) (3) offering a required service, sends a service discovery request (SD-REQ) (4) in the form of a multicast message to locally adjacent stations (2) of the decentralized mobile wireless network (8) which are IP routers, and these stations (2) in turn forward the multicast message to their neighboring stations (2) and finally to the service provider (server) (3) which responds with a service discovery reply (SD-REP) (7), characterized in that, for tracing the route back to the service requester (client) (1), the route information of the service discovery request and its reply are added to the routing tables of the stations (2).
2. Method according to preceding claim 1, characterized in that the service discovery request (SD-REQ) (4) of the at least one service requester (client) (1) is expanded to include elements of a route request (R-REQ) (5) of the at least one service provider (server) (3).
3. Method according to one of the preceding claims 1 and 2, characterized in that the service discovery reply (SD-REP) (7) of the at least one service provider (server)

is expanded to include all the elements of a route reply (R-REP) (6) of the at least one service requester (client) (1).

- 5 4. Method according to one of the preceding claims 1 to 3, characterized in that an AODV or a DSR protocol is preferably used as routing protocol which is incorporated in the service discovery request (SD-REQ) (4) and in the service discovery reply (SD-REP) (7).

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5. Method according to one of the preceding claims 1 to 4, characterized in that the routing protocol, preferably AODV or DSR, is extended such that, on receipt of the expanded SD-REQ messages (4a) and SD-REP messages (7a),
15 it updates the local routing tables accordingly with the route information.

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